ABSTRACT

An image sequence is inputted **200** from the camera and vertical motion is estimated **202**. A windowed horizontal edge projection **204** is extracted from the inputted image sequence **200** and the horizontal edges are projected **206.** The horizontal edge projection

5   **206** and the vertical motion estimation **202** are combined in a horizontal segmentation and tracking element **208**, and forwarded to an object parameter estimation element **210** where the object's distance and height are estimated. This data is combined in a fusion with radar detection element **212.** By correctly matching the overhead objects sensed by the radar and video camera, the proximity and relative speed can be ascertained. Once

10   overhead objects have been identified they can be isolated and not considered for collision avoidance purposes.

Vision-Based Highway Overhead Structure Detection System
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